# South Grand Chenier Hydrologic Restoration Project (ME-8-1)

**Coast 2050 Strategies –** Restore historic hydrologic and salinity conditions to protect wetlands from hydrologic modification (Regional Strategy 8). Move water from the Lakes Subbasin across Highway 82 including outfall management and flood protection where needed (Regional Strategy 4).

**Project Location -** Region 4 - Mermentau Basin - Cameron Parish. The project-benefited marsh is located south of Grand Chenier, LA, between LA Highway 82 and Hog Bayou.

**Problem -** The major problem is marsh loss caused by failed agricultural impoundments and pump-offs, saltwater intrusion caused by the Mermentau Ship Channel construction, and Gulf shoreline erosion (40 ft/year). Total marsh lost in the unit from 1932 to 1990 equaled 9,230 ac or about 38 % of the original 24,010 acres of marsh present in 1932 (0.65 %/yr). Greatest land loss was between 1956 and 1974 (0.94%/yr).

**Goals –** The project goals are to create 400 acres of emergent marsh and to nourish and enhance an additional 4,000 acres of emergent marsh with freshwater, nutrients and some sediment.

**Proposed Solution -** The project includes hydraulic dredging in Upper Mud Lake or the Gulf of Mexico and placement of dredged material in two 200-acre cells in shallow open water west and south of Second Lake. The second project component consists of introducing "fresher" water from the Mermentau River at two locations (approximately 126 cubic feet per second at each); 1.) the BP-Tennessee Gas producing facility and pipeline, and 2.) the Dr. Miller Canal to the McCall-Sturlese Tract south of Highway 82.

**Project Benefits** The project will result in net benefits to 3,763 acres of brackish and saline marsh and 3,733 acres of open water (total 7,496 acres). The project will protect/create 440 net acres of emergent marsh over 20 years.

**Project Costs** The total fully-funded cost for this project is $20,998,000 and the fully funded first cost is $19,307,700.

**Risk/Uncertainty and Longevity/Sustainability** - There is a moderate degree of certainty that this project will meet its objectives because marsh restoration with dredged material and freshwater introduction are proven coastal restoration techniques. However, the project depends on landowner cooperation and the ability to negotiate agreements regarding pipelines. The project should continue providing benefits over 20 years after construction; marsh restoration because after construction land loss rates will be lower

**Sponsoring Agency and Contact Persons -** U.S. Fish and Wildlife Service
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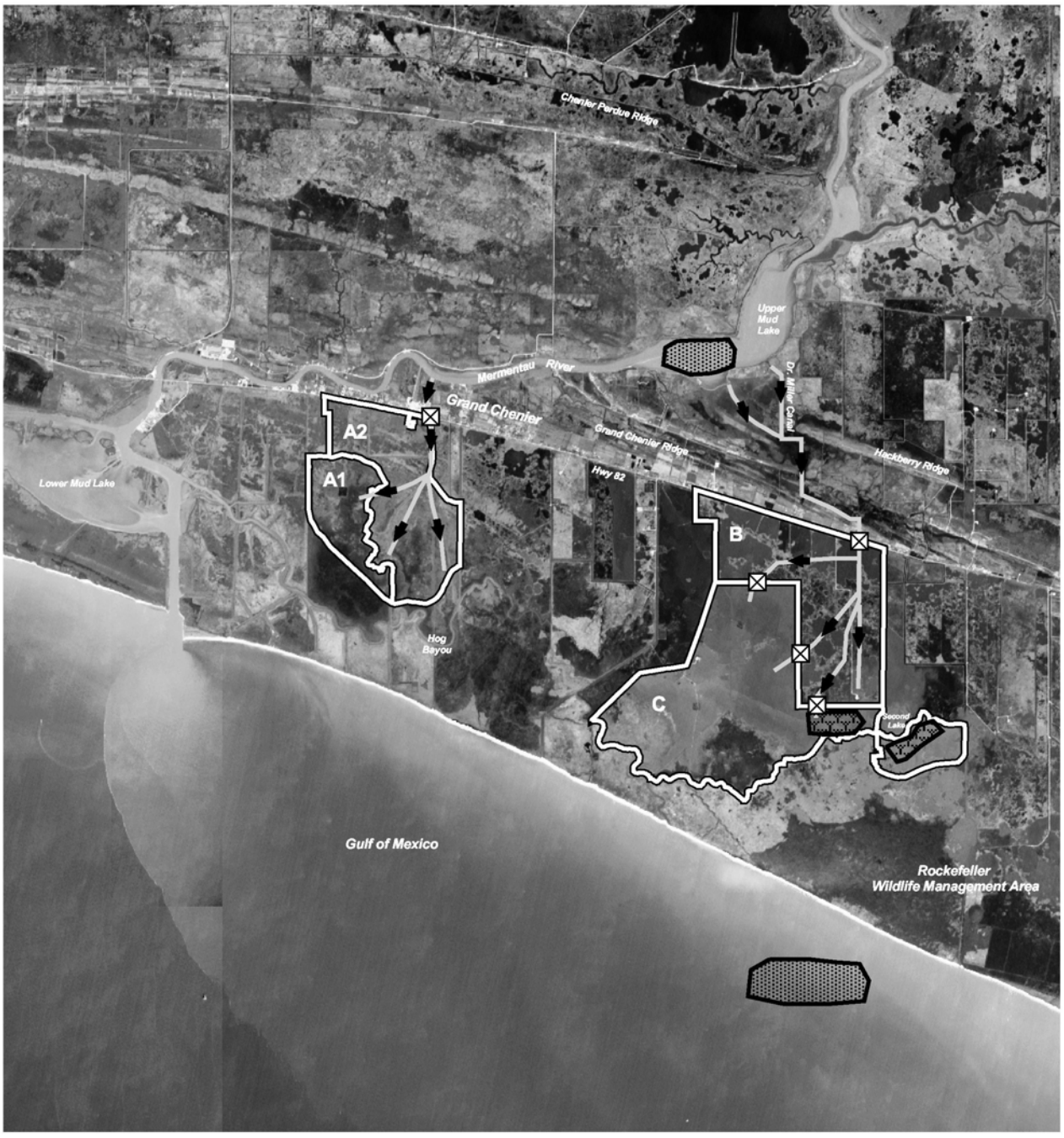



Project area
Marsh Creation Area
Dedicated Dredging Areas
Freshwater Introduction
Gates

Data Source:
U.S.Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station
LA Department of Natural Resources
Coastal Restoration Division
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CWPPRA PPL11
Region 4

# South Grand Chenier Hydrologic Restoration Project (ME-08-1)